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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/438,406	11/12/1999	BRIAN J. CLASSEN	C-3571	9272

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EXAMINER	
WILSON, JACQUELINE B	
ART UNIT	**PAPER NUMBER**
2612	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/438,406	CLASSEN ET AL.	
	Examiner	Art Unit	
	Jacqueline Wilson	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) *2* is/are withdrawn from consideration.

5)☒ Claim(s) *3-8* is/are allowed.

6)☒ Claim(s) *1* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant elected without traverse Group I (Claims 1, 3-8) in Paper No. 7 (02/12/04). Claim 2 is not elected and is therefor withdrawn from further action.

Drawings

The drawings corrections were received on 08/26/04. These drawings are accepted by the examiner.

Specification

The title correction was received on 08/26/04. The new title is accepted by the examiner.

Response to Arguments

1. Applicant's arguments filed 08/26/04 have been fully considered but they are not persuasive.

The applicant argues with respect to Claim 1 that the prior art fails to teach adjusting the color balance setting based on the luminance. The examiner disagrees. Tamura teaches the white balance control detects variation in the color of a subject (wherein color includes luminance and chrominance values). When the detected white balance is not correct, the automatic white balance control means computes a color gain correction value (col. 3, lines 10-30). Such color gain correction is clearly based on luminance, as broadly claimed, since the luminance of the video signal used for color correction must be of such a level as to be detected and processed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Tamura (US 6,618,091).

Regarding Claim 1, Tamura deriving a digital luminance signal from the analog video signal (fig. 1, microcomputer 15 obtains luminance data from camera signal processing means 10), analyzing the luminance (microcomputer 15) determining based on the analyzed luminance signal a set of control signals including a first shutter speed control signal and a first analog gain signal (interpreted as adjusting the exposure, col. 2, lines 42+) and determining color balance settings (col. 2, lines 3+, and col. 3, lines 10-30; referred to as white balance control) based on the luminance of a preceding field (as generated from the continuous loop).

Allowable Subject Matter

3. Claims 3-8 allowed.

The prior art neither teaches nor fairly suggests a method of processing a video image signal in a color video camera having a shutter speed, analog gain and a color balance adjustment means, the method comprising the steps a) deriving a digital luminance signal from said analog video image signal; b) analyzing the luminance signal over a first field of video; c) determining, based on the analyzed luminance signal, a first set of control signals including a first shutter speed control signal and a first analog gain signal, the first set of control signals causing the luminance of a majority of pixels in a field of video to be below a first limit defining a workable range of luminance; d) **determining, from the first set of control signals, a first set of color balance settings**; e) during a second field of video, **applying the first shutter speed control signal, the first analog gain signal and the first set of color balance settings to the shutter speed, analog gain and color balance adjustment means**, respectively; f) analyzing the luminance signal over the second field of video; g) determining, based on the analyzed luminance signal, a second set of control signals including a second shutter speed control signal and a second analog gain signal, the second set of control signals causing the luminance of a majority of pixels in a field of video to be above a second limit defining the workable range of luminance; h) **determining, from the second set of control signals, a second set of color balance settings**; and, i) during a next field of video, **applying the second shutter speed control signal, the second analog gain signal and the second set of color balance settings to the shutter speed, analog gain and color balance adjustment means**, respectively, as claimed in Claim 3.

The prior art neither teaches nor fairly suggests deriving a digital luminance signal, analyzing the luminance signal, determining a first set of control signals, determining a first set of color balance settings, during a second field of video applying the first set of control signals and first set of color balance settings, analog gain and color balance adjustment means, and repeating using a second field of view, **deriving color difference signals U and V from the analog video signal for each pixel, and for each pixel, comparing V with a threshold value representing green to determine if a pixel is green,** as claimed in Claim 5.

The prior art neither teaches nor fairly suggests a color video camera having therein a shutter speed control circuit, an analog gain circuit for adjusting the gain of the analog video signal, an analog to digital converter for converting a video output signal from said analog gain circuit into a digital signal for each pixel of the image, and luminance and chrominance signal processing circuits responsive to the digital signal for producing a luminance signal and color difference signals for each pixel; a histogram counter responsive to the luminance signal for counting during **one field the number of pixels having a luminance greater than a maximum level** and for **counting during the next field the number of pixels having a luminance less than a minimum level**; and, a controller for developing a shutter speed control signal, an analog gain control signal and color gain control signals for controlling said shutter speed control circuit, said analog gain circuit and said chrominance signal processing circuits, respectively, said controller being responsive to the count obtained during said one field to develop a shutter speed control signal and an analog gain signal **for bringing luminance of a**

majority of the pixels below said maximum level during the next field, and responsive to the count obtained during said next field to develop a shutter speed control signal and an analog gain signal **for bringing luminance of a majority of the pixels above said minimum level a next succeeding field**, as claimed in Claim 7.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline Wilson whose telephone number is (703) 308-5080. The examiner can normally be reached on 8:30am-5:00pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JW
11/26/04

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